FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: June 4, 1997
Date Received: May 21, 1997
Project: Metro Grab, PO #M57272
Date Samples Extracted: May 29, 1997
Date Extracts Analyzed: June 2, 1997

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID	Chromium	Copper	Nickel	Zinc
M57272	0.42	0.44	0.71	0.06
Method Blank	<0.05	<0.05	<0.05	<0.05

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Date of Report: June 4, 1997
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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 78288 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.42	0.43	2	0-20
Copper	mg/L (ppm)	0.44	0.43	2	0-20
Nickel	mg/L (ppm)	0.71	0.57	22h	0-20
Zinc	mg/L (ppm)	0.06	0.05	18	0-20

Laboratory Code: 78288 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.42	89	91	80-120	2
Copper	mg/L (ppm)	5	0.44	81	82	80-120	1
Nickel	mg/L (ppm)	10	0.71	91	90	80-120	1
Zinc	mg/L (ppm)	5	0.06	93	94	80-120	1

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	98	97	80-120	1
Copper	mg/L (ppm)	5	95	92	80-120	3
Nickel	mg/L (ppm)	10	102	101	80-120	1
Zinc	mg/L (ppm)	5	102	101	80-120	1

h- The RPD results are outside of the acceptance criteria established for this analysis. The sample contained suspended particulates. The variability present can be attributed to this sample type.

KNS AI
5/21/97 1:00pm

FRIEDMAN & BRUYA, INC.
3012 16th Avenue West
Seattle, WA 98119
(206) 285-8282

SAMPLE CHAIN OF CUSTODY

Send Report To:
Company Alaskan Copper Works Contact Gerald A. Thompson
Address 628 Hanford ST
City, State, Zip SEATTLE WA 98134
Phone # (206) 382-8379 Date 5-21-97

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	METRO GRAD	M57272

SAMPLERS *(signature)*

PROJECT LOCATION: 3200 6th Ave. S.

REMARKS

SAMPLE DISPOSAL INFORMATION
- ☐ Dispose after 30 days
- ☒ Return Samples
- ☐ Call for Instructions

Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analyses Requested
M57272	8:00pm 5/20	H_2O	1	78268	CR, CU, NI, ZN

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by:	RAY RAMOS	ACW	5/21/97	12:55 pm
Received by:	Sean Burdett/Chandler	F&BI	5/21/97	12:55pm
Relinquished by:				
Received by:				

FORMS/COC 03/24/94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth Albertson, M.S.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.
Melanie Kirol, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 4, 1997

INVOICE # 97ACU0604-2
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Grab, PO #M57272: Results of testing requested by Gerry Thompson, Project Manager for material submitted on May 21, 1997.

1 water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ $65 per sample	$ 65.00
Amount Due	$ 65.00

FEDERAL TAX ID #(b) (6)

FRIEDMAN & BRUYA, INC.

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TEL: (206) 285-8282
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e-mail: fbi@isomedia.com

June 4, 1997

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on May 21, 1997 from your Metro Grab, PO #M57272 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson
Chemist

keh
Enclosures
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